

ABSTRACT OF THE DISCLOSURE

In a video encoding apparatus 1, the conversion unit 8 decomposes a coding target image by a Matching Pursuits (MP) method using a basis set based on a two-dimensional function which is made by giving parameters for curving a predetermined two-dimensional pattern to a generating function for generating such two-dimensional pattern. According to such configuration, it becomes possible to decompose a coding target image by a small number of repetitive operations on the basis of the MP method. As a result, a coding target image can be decomposed into a small number of atom information, and thereby it becomes possible to generate compression data with a low bit rate.